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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/442,853	11/18/1999	ROGER A. BABB	53290-P014US	6475

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EXAMINER

ODOM, CURTIS B

ART UNIT	PAPER NUMBER
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2634

7

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/442,853

Applicant(s)

BABB ET AL..

Examiner

Curtis B. Odom

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-27 is/are allowed.
- 6) ☒ Claim(s) 7-21 and 28-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 7 objected to because of the following informalities: The phrase "said local oscillator" is suggested to be changed to "said local oscillator signal". Appropriate correction is required.
2. Claim 33 is objected to because of the following informalities: The phrase "said first intermediate frequency signal" is suggested to be changed to "a first intermediate frequency signal." Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
4. Claims 7-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 7 recites the limitation "a phase-locked loop comparing a characteristic of the local oscillator and

Art Unit: 2634

intermediate frequency signals...” Since the drawings are considered a summary or the claims and part of the specification, it is unclear to the examiner after reviewing the drawings (Figs. 1 and 5) how the phase-locked loop obtains a characteristic of the intermediate frequency signals. The specification also discloses “PLL 414 also preferably provides a carrier frequency offset error signal to receiver computer indicative of the frequency difference between the incoming reference carrier signal provided by receiver radio circuitry 440 and nominal center operating frequency of PLL as set by frequency synthesizer 420” (pg. 14, lines 23-26). However, after reviewing Fig. 1, it is illustrated that the PLL 414 has only one input connected to output of the frequency synthesizer. Therefore, it is unclear how the PLL receives the incoming reference carrier signal for comparison.

5. Claims 28-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 28 recites the limitation “comparing a frequency of the intermediate frequency signal and a frequency of the local oscillator signal to supply an offset error signal. ...” Since the drawings are considered a summary or the claims and part of the specification, it is unclear to the examiner after reviewing the drawings (Figs. 1 and 5) how the phase-locked loop obtains a frequency of the intermediate frequency signals. The specification also discloses “PLL 414 also preferably provides a carrier frequency offset error signal to receiver computer indicative of the frequency difference between the incoming reference carrier signal provided by receiver radio circuitry 440 and nominal center operating frequency of PLL as set by frequency synthesizer 420” (pg. 14, lines 23-26).

Art Unit: 2634

However, after reviewing Fig. 1, it is illustrated that the PLL 414 has only one input connected to output of the frequency synthesizer. Therefore, it is unclear how the PLL receives the incoming reference carrier signal for comparison.

6. Claims 33-37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 33 recite the limitations "a first phase locked-loop circuit supplying a carrier signal in response to said first intermediate frequency signal," and "a second phase-locked loop circuit responsive to said second local oscillator signal to supply (a) a second intermediate frequency signal and (b) an offset error signal in response to a difference between a frequency of said second modulated carrier signal and frequency of the second intermediate frequency signal,". Since the drawings are considered a summary of the claims and part of the specification, it is unclear to the examiner after reviewing the drawings (Figs. 1 and 5) how the phase-locked loop obtains the first intermediate frequency signals. The specification also discloses "PLL 414 also preferably provides a carrier frequency offset error signal to receiver computer indicative of the frequency difference between the incoming reference carrier signal provided by receiver radio circuitry 440 and nominal center operating frequency of PLL as set by frequency synthesizer 420" (pg. 14, lines 23-26). However, after reviewing Fig. 1, it is illustrated that the PLL 414 has only one input connected to output of the frequency synthesizer. Therefore, it is unclear how the PLL obtains a frequency of the second modulated carrier signal and a frequency of the second intermediate signal. The specification also discloses that radio circuitry provides intermediate

Art Unit: 2634

frequency signals (pg. 14, lines 17-19). Therefore, it is also unclear how the second phase-locked loop circuit supplies a second intermediate frequency signal.

Allowable Subject Matter

7. Claims 22-27 are allowable over prior art because related references do not disclose a radio communications terminal comprising: frequency synthesizer responsive to a tuning signal for providing a local oscillator signal; a radio modem comprising a phase-locked loop receiving the local oscillator signal, and providing a carrier signal; and a controller responsive to a frequency shift command from a remote terminal receiving the radio frequency signal for providing the tuning signal.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis B. Odom whose telephone number is 703-305-4097. The examiner can normally be reached on Monday- Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2634

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Curtis Odom
February 17, 2004



STEPHEN CHIN
SUPERVISORY PATENT EXAMINEE
TECHNOLOGY CENTER 2600